

WHAT IS CLAIMED IS:

1. An electrical connector surface mountable onto a substrate for transmitting power, comprising:

a housing of insulative material including a bottom surface adapted to face a substrate that the connector is surface mountable to, a top surface opposite the bottom surface, and a plurality of passageways between the bottom and the top surfaces, the housing providing at least two different geometries on the top surface thereof in accordance with the passageways such that there is at least one pole that may be inserted into one of the passageways having one geometry but may not be inserted into another one of the passageways having the other geometry; and

a plurality of contacts of conductive material assembled to the housing, each contact including a contacting portion at one end thereof, a tail portion at another end thereof and an intermediate portion joining the contacting portion and the tail portion, the contacting portions being received in corresponding ones of the passageways, the tail portion being located under the bottom surface of the housing and being generally parallel to the bottom surface such that the tail portions are surface mountable onto the substrate.

2. The electrical connector as recited in claim 1, wherein stand-offs are provided on the bottom surface.

3. The electrical connector as recited in claim 1 including a pair of conductive panels attached to the housing, each having a section below the bottom surface and being generally parallel with the bottom surface and being surface mountable onto the substrate.

4. An electrical connector surface mountable onto a substrate for transmitting power, comprising:

a housing of insulative material including a bottom surface confronting a substrate that the connector is surface mountable to, a front surface adapted to interconnect a complementary connector, a rear surface distanced from the front surface and a plurality of passageways between the front and the rear surfaces, the housing providing at least two different geometries on the front surface thereof in accordance with the passageways such that there is at least one pole that may be inserted into one of the passageways having one geometry but may not be inserted into another one of the passageways having the other geometry; and

a plurality of contacts of conductive material assembled to the housing, each contact including a contacting portion at one end thereof, a tail portion at another end thereof and an intermediate portion joining the contacting portion and the tail portion, the contacting portions being received in corresponding ones of the passageways, the intermediate portions extending from the contacting portions and beyond the rear surface of the housing and downward to the tail portions, the tail portions being located in a single plane below the bottom surface of the housing and being generally parallel with the bottom surface such that the tail portions are surface mountable onto the substrate.

5. The electrical connector as recited in claim 4, wherein the tail portions of the contacts are arranged in two rows and wherein one row of tail portions are located closer to the front surface of the housing than the other row of tail portions.

6. The electrical connector as recited in claim 5, wherein said one row of tail portions reversely extend toward the front surface of the housing under the bottom surface of the housing at locations behind the rear surface and the other row of tail

portions rearward extend a further distance from the rear surface.

7. The electrical connector as recited in claim 4, wherein stand-offs are provided on the bottom surface of the housing.

8. The electrical connector as recited in claim 4 including a pair of conductive panels attached to the housing, each having a section below the bottom surface and being generally parallel with the bottom surface and being surface mountable onto the substrate.

9. An electrical connector assembly comprising:

- a first insulative housing defining a longitudinal direction and a transverse direction perpendicular to said longitudinal direction;
- a plurality of passageways defined in the first housing;
- a plurality of first contacts respectively received in the corresponding passageways, each of said first contacts defining a surface mounting tail;
- a pair of mounting pads disposed on a bottom face of the first housing so as to mount said first housing to a printed circuit board; and
- a second insulative housing defining a plurality of poles compliantly received in the corresponding passageways, respectively;
- a plurality of second contacts respectively disposed in the corresponding poles, and mechanically and electrically engaged to the corresponding first contacts, respectively;
- a plurality of wires mechanically and electrically connected to tail sections of the second contacts, respectively; and
- at least one deflectable latch formed on the second housing to latchably engage a corresponding locking block on the first housing.